Hope and Quality of Life of Elderly Hospice Cancer Patients

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Abstract: *Older patients with confirmed diagnosis of advanced cancer always suffer from psychological distress. Hope is vital in cancer patients, as to cope and improve their quality of life during times of suffering and uncertain the* **aim** *to assess level of hope & quality of life of the elderly hospice cancer patients*
Subjects and Method: *A descriptive correlational research design was adopted.*
Sample: *A purposive sample utilized in this study on 340 elderly persons diagnosed with stage IV cancer.*
Tools of data collection: *by using two tools, first tool: a structured interviewing questionnaire, including two parts: sociodemographic data, second part: The Hospice Quality of Life Index (HQLI), the second tool was the Herth Hope Index (HHS).*
Results: *indicated that, the mean score of Hearth Hope Index was 24.41 ± 3.80 while, the mean score for Quality of Life was 74.02 (SD ± 6.64), a statistically significant correlation between quality of life, its domains (Psychophysiological and spiritual/social) and Herth hope index score were found ($p=0.002^*, 0.012^*, 0.025^*$)*
Conclusion: *It may be concluded that hope was a positive predictor to quality of life.*
Recommendations: *further researches are needed to increase knowledge related to the effect quality of hospice care on the patient's level of hope and their quality of life, educational programs for all nurses and other health care providers in hospitals and in elderly homes focusing on helping elderly cancer patients how to hope with cancer.*
Keywords: *Elderly hospice with Cancer, Hope, Quality of life.*

I. Introduction

Hope is a vital element for coping with a disease like cancer. Hope rise ability of patient to deal with difficult, stressful and suffering concerns, it can be considered like a variable positively leads to the quality of life experience (1). Hope is life force which is a multidimensional and dynamic that characterized by unsure expectation of improve a future is realistically possible and personally vital for the hopeful individual (2). Suicide and euthanasia can caused by reduced hope (3).

Hope can capable individuals to look beyond their present pain, suffering and turmoil. It is associated with well-being and quality of life and is one of the key components while coping with adversities. Hope loss and a narrowing of life expectations and goals are sought to decrease quality of life (QoL) (4). For cancer patients hope is a vital component as it is considered an effective coping strategy and adaptive power to enable patients to get across the difficult concerns and desired goals achieved (5).

The number of patients diagnosed with cancer raised during past years. Cancer not only impact patients physically, but may also affect the QoL negatively (6). Recently, more paid attention to the negative effects of cancer and its treatment on the QoL of cancer patients. Quality of life is wider multidimensional concept that includes patients' physical, emotional, social and spiritual health. According to National Health Interview Survey Data, nearly 1 in 4 cancer patients had a reduced quality of life due to physical and emotional problems. Physical health is the level to which symptoms and side effects like pain, fatigue and sleep disturbance, alter the ability to perform routine daily activities (7).

The hospice philosophy is to die with dignity, in presence of family, and unpleasant symptoms free at home. It is an alternative to a hospital death. Hospice care provided by an interdisciplinary team, included doctors, nurse, health aide, clergy and volunteers trained (8). Hospice care concentrate on the patient and family quality of life, rather than the disease and treatment (9).

Hospice care entrance for cancer patient is after a long-term medical treatment course, (10). While the cure hope is vital, the end of life hope is no less important when the care goal is QOL (11). Hospice vital role is to reshape the hope meaning and help the individual to understand meaning in suffering of illness; this can

promotes their quality of life (12).

(13), conceptualized hope & quality of life are multidimensional elements vital to the cancer patient. QOL includes three domains which are psycho physiological like mood status, pain, sleep, sex life, breathlessness and constipation, functional like concentration ability and independence sense maintenance, finally, social/spiritual as family, friends, and healthcare team supports, a God relationship with, and life meaning. The QOL and hope relationship in perivious elements is shown in researches' which explained levels of hope regards to pain, functional ability, social support and God (14).

However, there is Knowledge Lake about elderly cancer patients, particularly in the advanced stages. So, it may be needed to explore QoL and hope in the elderly cancer patients' to assess how they better able to manage their health concerns and to improve quality care at the end of life.

Significance of the study:

Hope is a vital resource in cancer patient's life, rise ability to deal with suffering and uncertainty times. Few studies carried out on QoL and hope for cancer patients and for older patients particularly. A low hope level is a predictor for reduced QoL in elderly patients' with cancer after diagnosis six months follow-up study.

Earlier intervention findings revealed a strong positive relation between hope and QoL, and stated following intervention improvement. Thus, hope may buffer against reduced QoL and so be a personal resource. QoL is considered a vital health care outcome factor in related to disease trajectory, treatment and manage daily living ability. Hope, however, seen little investigated as vital health care outcome factor. Therefore, to bolster hope, health caregivers needed an understanding of its meaning of advanced cancer patients and an awareness of those factors demonstrated empirically to foster hope in this patient population. So, this study aimed to assess hope and QOL for elderly cancer patients at end of life.

Aim:
To assess level of hope & quality of life of the elderly hospice cancer patients
Objectives:
1. Determine the level of hope among elderly hospice cancer patients.
2. Explore the level quality of life among the elderly hospice cancer patients
3. Detect the relationship between level of hope & level of quality of life of the elderly hospice cancer patients.

II.   Methods

Design:
A descriptive correlational research design was adopted for current study.

Setting.
Present study conducted at outpatient oncology clinics affiliated by oncology center in El-Mansoura University Hospitals. It consisted of two parts, the first part accelerated device setting, and it consisted of awaiting area and four rooms for radiology, the second part consisted of three waiting area, and twelve rooms for providing chemotherapy, examination for chemotherapy doses, radiofrequency ablation, radiographers, and cobalt device.

Target population
All elderly hospice patients attending outpatient oncology clinics El-Mansoura University Hospitals were the target population, regardless age, gender, economic status during the period of data collection

Sample:
A purposive sample of 340 cancer elderly patients were involved in the current study, as regards the following: Inclusion criteria: both sexes, 60 years old and more, end stage cancer, alert, oriented, and aware caregiver with patient. Exclusion criteria: Patients with experienced burden and uncontrolled symptoms like dyspnea & pain.

3. Data Collection
Two tools for data collection were utilized as follow:
Tool I: Structural interview questionnaire: this tool divided into two parts:

First part: developed by researchers to include the socio-demographic characteristics as, age, education, occupation, marital status,…etc) of the studied elderly, this part also included medical history of the studied participant.

Second part: Hospice Quality of Life Index (HQLI) originated by (15) in English language and translated into

Arabic language by the researcher; the HQLI is 3 domain scale include 28 questions to assess the hospice cancer patients quality of life in the following domains, the psycho physiological domain as mood status, pain, sleep, sex life, breathlessness, constipation and hope. Functional category as concentration ability, social life, and maintenance independence sense. Lastly, social/spiritual domain as family, friends, and healthcare team support, a God relationship and life meaning.

Scoring system: HQLI-R is a self- report Likert scale of zero to ten with 28 total variables of (0 to 280) total score, designed for hospice patients with cancer. HQLI-R higher scores indicate a greater quality of life provided with a maximum of 280 points distributed as 70 for functional domain, 130 for Psycho physiological domain and 80 social/ spiritual domain.

Second tool: Herth Hope Index

Herth Hope Index (HHI) developed by Herth, (1992) in English language and translated into Arabic language by the researchers; the adapted from the Herth Hope Scale (HHS) it designed to capture the hope status of hospice patients with cancer which included 30 items for 6 hope dimensions .

Scoring system: The response for items using a four Likert scale, as Never = 0 Seldom = 1 Sometimes = 2 Often = 3, the following items need to be reversed scored as 6, 10, 13, 17, 22, 26. Summing the ratings for the subscales form the total score .Total points of scale is 90 points. The higher score the higher level of hope.
 The hope scores are classified as follow: Low <50 score (<45 points), Moderate 50%to 60% score (45 to 54 points) and High > 60% score (< 54 points)

Validity:

The questionnaires were reviewed by 5 expertise's of from nursing and medical staff to judge content validity for the HQLI ($r = .26$, $p < .05$). HHI Validation involved HHI and HHS correlations ($r = 0.92$), Existential Well-Being Scale ($r = 0.84$), Nowotny Hope Scale ($r = 0.81$). Lastly, HHI was correlated with Hopelessness Scale for divergent validity ($r = - 0.73$).

Reliability.

Alpha cronbach coefficient was $r = .88$ for the scale, and for each subscale was $r = .84$, for HQLI scale. It was 0.97 with test-retest reliability after 2 weeks was 0.91 for HHI scale.

Pilot study:

The pilot study done on 10% (34) of the study subjects 340 and excluded from sample. The pilot study ascertain the tools relevance and content validity, estimating time needed , detect any problem peculiar to data collection tools and testing feasibility of the study process. Based on findings of the pilot study, certain modifications on the tools were done.

Field work:

The researchers were using the previously mentioned tools for collecting the data, the data collected within 6 months period (from February 2018 to September 2018), three days per week (Monday, Tuesday, and Wednesday) from 9.00 am to 12.00 am. Patients who agree to participate and hadn't any exclusion criteria been involved in the study. Purpose of the study will be explained to them prior answering the questions, Patient were interviewed during their visit to the clinics, where patients asked about demographic and socioeconomic data, questions related to scale of quality of life and scale of hope, Patients records were reviewed, to confirm the patient condition. Interview lasted an average of 35-40 minutes for each patient.

Administrative design:

An official letter from the Faculty of Nursing to the responsible authorities of the study setting to obtain permission for data collection. The purpose of study was explained to all participated patients and emphasize voluntary participation with an oral consent.

Ethical considerations:

This study takes the ethical committee agreement in 31/5/2018 with code number (6/5-2018) by the scientific research ethics committee of the collage of nursing at Port-Said University. Oral informed consent obtained from each elderly who agree to participate in the study before conducting the interview. They were given a verbal description of the aims of the study, the benefits, and non-participation or withdrawal rights at any time without giving any reasons. The elderly was informed that their participation in this study was voluntary, no names were included in the questionnaire sheet and anonymity of each elderly was protected by

the allocation of code number for each elderly. The elderly was assured about the confidentiality of the information gathered and its use only for their benefits and for the purpose of the study.

Method of data analysis

Data were analyzed using SPSS software package version 23.0. Number and percent used for qualitative data. Mean and standard deviation for quantitative data. Chi-square test for comparison between different groups regarding categorical variables. For normally distributed data, independent t-test used for comparison between two independent populations while more than two by F-test (ANOVA). Correlations between two quantitative variables by Pearson coefficient. For ordinal data correlations between two variables by Spearman coefficient. Multivariate liner regression for QFL was assessed. Significance of the obtained results was judged at the 5% level.

III.   Results

Table 1: The study sample comprised 360 hospice patients, their age ranged between 60 and 90 years, 53.9%, were in the age group 60-70 years, 55.0% of them were females, 34.4% were just read and write, 51.4% were married and 54.2% of them mentioned that they are not working at the time of the study.

Figure (1) represent distribution of the studied sample regards their level of hope, data indicated that, 20.6% of the sample had high level of hope, 46.4% had moderate level, while 43.1% of them had low level of hope.

Table 2: demonstrate the mean score of Herth hope index of hospice patients; results revealed that, the mean score of Herth hope index was 24.41 ± 3.80.

Table 3: demonstrate the total quality of life, its domains (Social/ Spiritual, Functional and Psycho-physiological) and Herth hope index of hospice patients, results indicates that the participants had middle score in domain of Social/ Spiritual, where the mean was (26.24 ± 3.78), while they had low scores in the domain of psycho-physiological (25.25 ± 3.26), the lowest one was functional domain (25.25 ± 3.09), the total mean of quality of life was 74.02 ± 6.64.

Table 4: illustrate the correlations between total quality of life, its domains (Social/ Spiritual, Functional and Psycho-physiological) and Herth hope index of hospice patients. data revealed a statistically significant correlation between quality of life, its domains and Herth hope index except in functional domain, no statistically significant correlation was detected, where $p=0.186$.

Multivariate analysis **Table 5** identified that Herth hope Index score of the studied hospice patients was independent statistically significant positive predictors of the total score of QoL; On the other hand, being divorced and sex were negative predictors of this score. Moreover, age and, being widow did not find to predict quality of life.

Table (1). Distribution of studied sample as regards to demographic data (n = 360)

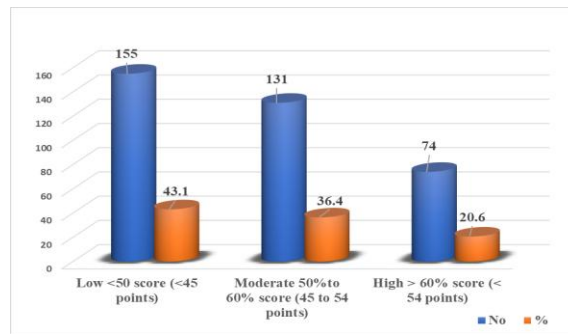| Items	No	%
Age		
60-70	194	53.9
71-80	93	25.8
81-90	73	20.3
Sex		
-Male	162	45.0
-Female	198	55.0
Educational		
Literacy	124	34.4
Unliterary	97	26.9
Primary	91	25.3
Secondary	29	8.1
University	19	5.3
Occupation		
Work	165	45.8
Un work	195	54.2
Marital status		
Married	185	51.4
Single	86	23.9
Divorced	28	7.8

Figure (1). Distribution of studied sample according to their level of hope (n=360)

Table (2): Distribution of studied sample as regards to their hope score (n=360)

Items	Total score	Average score
Herth Hope Index score		
Min. – Max.	14.0 – 34.0	1.40 – 3.40
Mean ± SD.	24.41 ± 3.80	2.44 ± 0.38

Table (3): Distribution of the studied cases regarding to their total quality of life and its dimensions scores (n=360)

Items	Total score	Average score
Social/ Spiritual		
Min. – Max.	14.0 – 37.0	1.40 – 3.70
Mean ± SD.	26.24 ± 3.78	2.62 ± 0.38
Functional		
Min. – Max.	13.0 – 29.0	1.44 – 3.22
Mean ± SD.	22.52 ± 3.09	2.50 ± 0.34
Psychophysiological		
Min. – Max.	15.0 – 35.0	1.50 – 3.50
Mean ± SD.	25.25 ± 3.26	2.52 ± 0.33
Total QFL		
Min. – Max.	51.0 – 91.0	1.76 – 3.14
Mean ± SD.	74.02 ± 6.64	2.55 ± 0.23

Table (4): Correlation between Herth hope index score with total quality of life and its dimensions

Items	% Score of Herth hope Index score	
	r	P
Spiritual	0.133[*]	0.012[*]
Functional	0.070	0.186
Psychophysiological	0.118[*]	0.025[*]
Total QFL	0.165[*]	0.002[*]

r: Pearson coefficient   *Statistical significant at $p \leq 0.05$

Table (5): Multivariate analysis linear regression for quality of life

Items	B	t	P
Age	0.301	0.710	0.478
Sex	-1.621	2.402[*]	0.017[*]
Single	2.995	3.615[*]	<0.001[*]
Widow	1.716	1.835	0.067
Divorced	-2.674	2.067[*]	0.040[*]
Herth Hope Index Score	0.261	2.967[*]	0.003[*]

B: Un standardized Coefficients

IV. Discussion

Quality of life and hope is the goals of end of life care and have a positive effect on health (7). The aim of the present study to assess level of hope and QOL in elderly hospice cancer patients.

The present study consists of 360 hospice cancer patients. The female consisted of more than half of the total sample; also, about one half of those patients not working or retired from work, and were married. Social/ spiritual domain is interconnection between self, others, nature, and ultimate other. Spirituality enables transcendence, force persons to be whole and to live fully and give meaning and purpose sense. This domain has two elements, religious and existential well-being (16).

The result of the present study revealed that, as regard the domains of QoL, participants in the present study had a better score in the domain of social/ spiritual than other domains, this might be due the nature of the people in Egypt where they had greater religiousness specially in case of illness, and they get a great social support from their relatives, where the family bounds are strong.

These findings go in agreement with a study done in China by **(17)**, who clarified that patients with terminal disease have greater religiousness in compared to other and that these patients spirituality positively correlated with psychological health. According to a study conducted in India by **(18)** reported a moderate spirituality level, a very positive view of God relationship, and a moderate life satisfaction level and aim. These findings are contradictory with the result conducted in Turkey by (19)**, s**tudied quality of life in colorectal cancer patients: an Izmir and reported that cancer patients often reach hope and comfort in their faith while put their beliefs to ensure that they have meaningful and productive lives. In accordance with these findings the study done in Asia by **(20);** mentioned that patients' who have a good religious belief have good psychological and spiritual health. Spiritual health help patients to select hospice care and thus provide greater QOL than those who don't have hospice care.

Furthermore, a study done in Brazil by **Andrade, Muniz, Lange, Schwartz, & Echevarria Guani (2013)** reported that spirituality/social support is a vital predictors of QOL in terminally ill patients, similarly in a study carried out in Turkey by **Karabulutlu, (2014**), revealed that social support have a significantly relationship with QOL of terminally ill patients, associated with few distress and have a positive relationship with spirituality. Study results are disagreement with a study conducted by **Rezaei & Saleh, (2016**), in Iran, who clarified that the patients who lived lonely had a significantly good QOL than lived with their caregivers.

The psychophysiological domain in QOL for cancer hospice patients involves anxiety, pain, constipation, anger, sleep, breathlessness, and sex life, while functional domain includes; ability to concentrate and maintain independence sense. Data of the present study indicated that, the study participants getting a lower score regarding psycho-physiological and functional domains, according to **Thweib, (2013),** many patients in activities of daily living are fully dependent before die. He added that, some investigators and clinicians usually emphasis on the functional aspect of QOL, as persons QOL decreases as progress of disease and physical disability. Functional performance score was low; this expected in hospice patient groups.

Additionally, a study conducted by **Shakeri et al., (2015)** in India, reported that, life for the dying individual in his terminal phases may take new ways that are not often revealed to those who will save the patient, greatly decrease in mobility, reduce in home and work duties . For the dying person physical discomfort significantly impacts QOL. Pain is a dying person's predominant physical concern as about 70% to 90% of advanced cancer patients' have significant pain.

These findings go in line with a study conducted by **Maleknia & Kahrazei, (2015)**, who revealed that, pain is the initial reason that advanced disease patients have death desire. The findings underscore the necessary of psychological and social involvement in the patient's death integrated care.

In accordance with these findings a study conducted in Japan by Chen, Huang, Yeh, Huang, & Chen (2014), found that poor QOL lead to premature death, finding has revealed that 4 factor as depression, anxiety, shortness of breath, and a sense of wellbeing commonly associated with QOL predicted the will to live in a group of terminally ill hospitalized cancer patients receiving end of life care.

Al-Sharbatti1, Muttappallymyalil, Sreedharan, & Almosawy (2017) in their study carried in Emirates, reported that dying patients experiences psychological adjustments that progress to clinical depressive or anxiety problems. A depressive or anxiety problems history can lead a patient to have psychiatric diseases.

The finding is in congruence with a study conducted in **Denmark by Esbensen & Thomsen, (2011)**, who reported well-being sense correlated greatly with a live across the process of death. While, the significant of each symptom changed as death borderline. Firstly, anxiety correlated negatively with live desire. Depression alternative to anxiety in prominence, and in the finally, the dyspnea was strong correlating with live desire. Psychological elements used in framing persons desire to live early on, while physical problems appear as death approaches.

Results also revealed that, the studied sample had lower score of QoL. The lower levels of quality of life could be attributed to pain and other symptom of cancer during the time of the interview, and the hospice associated with poor EOL care. All conditions cause poor levels of QOL of patients interview. According to **Thweib, (2013)**, in comparing QoL in elderly patients with and without cancer, found that the elderly patients' with had lower scores in QoL and more symptom suffering.

A study carried by **Schlosser & Ceolim, (2012)** in Brazil, summarize the QOL changes of cancer hospice patients in the advanced, progressive, incurable disease as the an individual living subjective experience of the interpersonal, psychological, and existential or spiritual burdens that associated with physical and functional decline process "

According to a study conducted in India by **Puri et al., (2014)**, found that, when distressing symptoms rise, QOL reduced in elderly cancer patients and those who are receiving chemotherapy suffering problems with signs o control that have an effect on QOL. While, psychological symptom distress, pain, and anxiety lead to reduced QOL in hospice patients. Concerns associated with caregiver presence, depression, functional status, and aging are also aspects when assessing QOL.

Alsharbatti et al., (2017) in a study conducted in Emirates, reported that, poor QOL is associated with the elderly cancer patients, with a limited life expectancy compared to younger patients' and increased treatment complication risks. Moreover, in a study carried in Turkey by **Karabulutlu, (2014),** reported that, the good QOL may be related to higher spiritual and existential health.

As regard to the HHI level scores, results indicated that more than two fifth of the studied participants low level of hope, while more than one third had a moderate level of hope. This is confirmed through a study done in Brazil by **Luciano et al., (2015)**, who identify healthy individuals hope as a process conducted with life meaning. Therefore, hope is a notion that not only contains the years numbers left to live, but also the life meaning, this concern may be needed for the elderly patients with cancer caused by life expectancy limited, regardless of the disease outcome. **Shakeri et al., (2015**) in a study hold in India reported that, although the cancer patient hope steady during wellness seeking needed, hope approved to be no few needed at the end of life.

This result supporting the theory of **Maleknia & Kahrazei, (2015)**, who states that when persons specific or particular hopes aren't reached, the generalized hopes will assume and permit the person to deal with a life limit illness stress. Although, who view the hope of terminal illness to be denial indication that seen as a coping strategy for experiencing a terminal cancer diagnosis losses. A qualitative study carried in in Turkey by **Karabulutlu, (2014)**, stated hope loss as threatening for an elderly cancer patients', as it the life finiteness.

The correlation between the scores of the total QoL, spiritual, psychophysiological domains and HHI (Hope) in the present study was positive. This prove that hope is a concept not far from QOL. The QOL model stated by Santos & **Amauri, (2010),** mentioned that hope is a psycho physiological domain phenomenon, rather than as a spilt element. The current study is supported by a study done in Romania by **Craciuna, (2013),** who found, that the correlation between HQLI and HHI scores was mild to moderate, but significant, moreover each of the 3 subscales scores of HQLI were correlated with HHI scores. Finding is in congruence with a study in Denmark by **Esbensen & Thomsen, (2011)**, who mentioned that that terminally ill cancer patients often reach hope and comfort in their faith while shaping beliefs to ensure that their meaningful and productive lives. According to **Thweib, (2013)**, reported that, decreased hope, as spiritual distress source, may seriously leads to alteration in the health of terminally ill cancer patients.

In this context, a study done in Greece by **Geogakopoulos, Kontodimopoulos, Chatziioannou & Niakas, (2013)**, explained that, social or spiritual items are family and peers supports, one cares, improved surroundings sense of well-being, physical care provided, emotional and spiritual healthcare support staff, states that person's life has goals and satisfied with God relationship, Moreover, the great hope levels related to that hospice care concentrates on all domains of health of patient.

Kavradim et al., 2015 in a study conducted in Turkey, added that, the requirement of a deeper spiritual experience, God reconciliation, and the inner peace experience, is important hope source with a life-limiting illness and have mentioned spirituality and social support to be vital factor of QOL in terminally ill patients, Furthermore, the majority of patients reported a great social support level, as their support came from caregivers or other family members. Some patients who lived lonely reported their pets as social support source, which improve an interesting concern on the pets value for terminally ill patients social support. Other contact sources, like hospice personnel, may also be necessary for patients live a lonely, thus leads to good QOL by improving social support.

In relation to, **Rawdin et al., (2013),** one vital concern in the 'hope' and QoL concepts is that appears as two separate ones. Although, they are dependent on each other, the relationship isn't easy. Earlier intervention researches have reported a good positive relation between hope and QoL, and cause following intervention improvement (**Duggleby et al., 2013**).

The results of the present study indicated that, hope was a positive predictor on quality of life, according to **Utne, Miaskowski, Paul, & Rustøen (2013);** reported decreased hope level is a predictor for poor QoL in elderly cancer patients 6 months per diagnosis. In another study carried by **Duggleby et al., (2013**), reported the hope as a vital resource for cancer patients. In a follow-up research a decreased hope level was a predictor for poor QoL in elderly patients with cancer 6 months after diagnosis.

Finally, the current result findings revealed by a study done in Egypt by I**brahim, Khaled, Mikhail, Baraka, & Kamel (2014)**, reported that, hope is reported as an important element for cancer patients.

V. Conclusion:

This study concluded that, the studied participant had a better score of social/ spiritual domain, and had lower scores of psychophysiological& functional domains & total QoL, while they of hope range from moderate to low, there were positive and significant correlations between the total QoL, spiritual, psychophysiological domains and Hope, the results also indicated that, hope was a positive predictor on quality of life of the study participant, & this means that, despite poor QoL among studied sample, they had ability to cope with their difficult concerns and maintain hope in end of life. Furthermore, the best quality of life associated with the most hopeful patients.

VI. Recommendations:

From the results of the present study the following recommendations are suggested:

1. Development of educational programs for all nurses and other health care providers in hospitals and in elderly homes focusing on helping elderly cancer patients how to hope with cancer.

2. Further research is needed to increase knowledge regarding the impact of hospice on hope and quality of life.

3. *Further researches* should be conducted to find out the using effectiveness of hoping strategies in reducing the stress levels and improving QoL among the elderly cancer patients.

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